UNITED STATES DEPARTMENT OF COMMERCE
Chief Financial Officer
Assistant Secretary for Administration
Washington, D.C. 20230

DEC 2 9 2006

Mr. Brad Gustafson
Federal Energy Management Program, EE-90
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0121

Dear Mr. Gustafson:

In accordance with the Department of Energy's guidance, enclosed is the Department of Commerce's Fiscal Year (FY) 2006 Annual Report on Federal Government Energy Management and Conservation Programs. The Report includes our FY 2006 Annual Energy Management Data Report, FY 2006 Federal Agency Energy Scorecard, and Energy Management Implementation Plan for FY 2007.

We are pleased to report a 21.2 percent reduction in facility energy usage in our facilities. This reduction exceeds the two percent FY 2006 energy reduction goal of the Energy Policy Act of 2005.

The FY 2003 baseline has been adjusted. During our review of FY 2003 data, we found some cost and consumption variations due to estimates that were used for some end-of-year utility bills, and some square footage errors. In addition, some facilities originally categorized as Goal Subject Buildings have now been properly categorized as Excluded Facilities.

We are also pleased to report that 32.7 percent of our electrical energy consumption in FY 2006 was generated from renewable energy sources, far exceeding the Federal goal of 2.5 percent.

If you have any questions or concerns regarding this matter, please contact me at (202) 482-1200 or Regina Larrabee, the Department's Energy Manager, at (202) 482-2345.

Sincerely,

for Douglas F. Egan

Fred E Fanning
Acting Director, Office of Administrative Services

Enclosure

cc: Francesca Ryan, Acting Director, ORE
Otto Wolff, CFO/ASA

Fiscal Year 2006 Annual Report
on
Federal Government Energy Management and Conservation Programs

U.S. Department of Commerce

I. **Management and Administration.** The Department of Commerce's (DOC) energy program is outlined in Department Administrative Order (DAO) #217-16, *Federal Energy Management.* This DAO prescribes policies, assigns responsibilities, and provides program guidelines for energy management.

In addition, the Department has a strategic implementation plan (SIP) for energy management that is guides the Department in the implementation of the DAO. During fiscal year (FY) 2006, the Department updated the SIP to reflect the new requirements brought about by the *Energy Policy Act of 2005* (EPACT 2005). This update is under final review and will be issued soon.

Operating units with responsibility for energy and water management in facilities include the following:

- Office of the Secretary (OSEC),
- National Oceanic and Atmospheric Administration (NOAA),
- National Institute of Standards and Technology (NIST),
- National Technical Information Service (NTIS), and
- Bureau of the Census (Census).

A. Energy Management Infrastructure Executive Order (E.O.) 13123, *Greening the Federal Government through Efficient Energy Management* requires that each agency designate a senior official, at the Assistant Secretary level or above, to be responsible for meeting the goals and requirements of E.O. 13123, and that each agency shall form a technical support team consisting of appropriate procurement, legal, budget, management, and technical representatives. The energy management organizational infrastructure supporting DOC's energy management implementation plan is as follows:

1. **Senior Energy Official.** The Department's Senior Energy Official is Mr. Otto J. Wolff, Chief Financial Officer and Assistant Secretary for Administration. The Senior Energy Official, or his designated representative, participates at the Interagency Energy Policy Committee meetings and ensures actions under the *Department of Commerce Strategic Implementation Plan for Energy Management* are accomplished to meet Federal goals.

2. **FY 2006 Agency Energy Team.** The Agency Energy Team continually monitors the progress of the agency in implementing specific actions of the plan, and advises DOC Energy Program Manager and Senior Agency Official of any action that should be taken to provide DOC personnel with the training and resources

necessary to ensure successful implementation. The FY 2006 DOC Energy Team was comprised of the following members:

- Lance Feiner, Director, Office of Real Estate, DOC;
- Regina Larrabee, Energy Program Manager, Office of Real Estate, DOC;
- Malcolm Orr, Attorney, General Law Division, DOC;
- Mike Sade, Director, Acquisition Management and Financial Assistance, DOC;
- John R. Bollinger, Chief, Plant Division, NIST;
- Bryan Faktor, Facilities Manager, Engineering, Maintenance, Safety and Support Division , NIST;
- Ray Farber, Engineering, Maintenance, Safety and Support Division , NIST;
- Gordon B. Fox, Chief, Facilities Engineering Group, NIST;
- Dave Henry, Chief, Operations Engineering Group, NIST;
- Jim McConnell, Engineering, Maintenance, Safety and Support Division , NIST;
- Jatin R. Patel, Mechanical Engineer, Facilities Engineering, NIST;
- Steve Salber, Chief, Engineering, Maintenance, Safety and Support Division, NIST;
- Gary Schow, Engineering, Maintenance, Safety and Support Division , NIST;
- Zeke Dennison, Logistics Division Director, NOAA;
- Bernie Denno, Chief, Environmental Compliance Division, NOAA;
- Will Freeman, Environmental Compliance Division, NOAA;
- Mark Napoli, Logistics Division Deputy Director, NOAA;
- John Pierson, Director, Safety and Environmental Compliance Office, NOAA;
- John Porter, Architect, NOAA; and
- Minh Trinh, Regional Environmental Compliance Officer, NOAA.

The Agency Energy Team conducts quarterly web-meetings, which are open to all interested parties in the Department to participate.

B. Management Tools

1. **Awards (Employee Incentive Programs).** The Department actively participates in the Federal Energy Management Program (FEMP) *You Have the Power* and *Federal Energy and Water Management Awards* programs.

2. **Performance Evaluations.** Key personnel have references to the Department's energy program in their performance standards.

3. **Training and Education.** The Agency Energy Team promotes energy-related training opportunities for facility energy management personnel. Annually, employees attend the Federal government-sponsored energy training workshop.

Operating units make energy awareness a key part of their energy programs, using materials provided through the FEMP *You Have the Power* program as well as with supplemental materials. Annually, the Department implements energy conservation awareness campaigns in conjunction with Energy Awareness Month and Earth Day. The campaigns included displays, informational materials and posters in the Herbert C. Hoover Building (Hoover Building). Other DOC sites around the country conduct similar campaigns.

4. **Showcase Facilities.** The Department participates in the Federal Energy Saver Showcase program, and will nominate deserving facilities to be a Showcase project as an opportunity to recognize their accomplishments. To date, the Department has six showcase facilities.

II. **Energy Efficiency Performance.** For FY 2006, the Department is reporting energy consumption in three categories: 1) Goal Subject Buildings, 2) Excluded Facilities, and 3) Non-Fleet Vehicle and Equipment. A complete profile of the Department's energy efficiency performance is presented by the following documents:

- *FY 2006 Energy Management Data Report* (Attachment 1);
- *FY 2003 Energy Data Baseline Worksheet (* Attachment 2); and
- *FY 2006 Federal Agency Energy Scorecard* (Attachment 3).

A. Energy Reduction Performance

1. **Goal Subject Buildings.** The Department has had a 21.2 percent reduction in energy use as compared with the FY 2003 baseline. Goal Subject Buildings used 154,329 British thermal units (Btus) per gross square foot (Btu/GSF) in FY 2006 as compared with 195,967 Btu/GSF in FY 2003. The Department has exceeded the FY 2006 energy reduction goal of 2 percent for Goal Subject Buildings and has met the 20 percent reduction goal for FY 2015.

   The Department also supplements traditional energy reduction measures with purchases of renewable energy to reduce the amount of traditional (non-renewable) energy consumed. Excluding the renewable energy credits, the Department exceeded the FY 2006 goal of two percent by achieving a 4.7 percent reduction in energy consumption.

2. **Excluded Facilities.** As permitted, the Department is excluding several facilities from the requirements of EPACT 2005. These facilities, categorized as Assumed Excluded Structures, are primarily radar and radio transmitter facilities. In addition, NIST's Advanced Measurement Laboratory complex was excluded from the baseline because it was still under construction during FY 2003. See Attachment 4 for a list of Excluded Facilities.

3. **Non-Fleet Vehicle and Equipment Fuel Use.** NOAA uses diesel fuel, aviation gasoline and jet fuel for its marine and aviation vehicles. NOAA operates a wide assortment of marine survey and research vessels. Airplanes and helicopters are flown in support of NOAA's environmental research missions. These aircraft provide scientists with airborne platforms necessary to collect the environmental and geographic data essential to their research.

   NOAA schedules its marine operations in a manner that results in these vehicles being operated as efficiently as possible. Fuel usage for NOAA's marine vessels has remained relatively consistent in recent years, despite additional operations in the aftermath of Hurricane Katrina. Flights of NOAA aircraft returned to normal levels this year after a surge in operations during the FY 2005 hurricane season.

   In keeping with its mission as a steward of the marine environment, NOAA continues to expand on its use of biodiesel products. In FY 2006, NOAA's Great Lakes Environmental Research Laboratory increased its consumption of 100 percent biodiesel (B100) by a factor of four, and has now converted three Great lakes vessels to total petroleum-free operation. In addition, the NOAA Research Vessel *Hildebrand*, based in Beaufort, North Carolina, was successfully converted to B100 in FY 2006.

B. **Renewable Energy.** Operating units are responsible for funding and implementing the use of renewable energy.

1. **Self-generated Renewable Energy.** Small-scale projects that self-generate energy using renewable sources (such as photovoltaics or wind turbines) or renewable energy thermal projects (such as solar thermal, biomass, or geothermal) are used to supplement commercial power. NOAA continues to operate a 10 kilo-watt (kW) photovoltaic unit in American Samoa and a 10 kW photovoltaic system in San Diego, California. NIST continues to operate its 35 kW photovoltaic array on the roof of the Administration Building at its Gaithersburg, Maryland, facility. NIST's Boulder, Colorado, campus also has solar-powered lighting for its Building 2 parking lot. In 2006, NOAA's and NIST's systems produced a total of 20.2 Mega-Watt-hours (MWh) and 36.7 MWh of electricity, respectively.

2. **Purchased Renewable Energy.** NIST and NOAA continue to purchase wind-generated renewable power to supply a portion of the electrical needs at their Boulder, Colorado, facilities. In FY 2006, NIST and NOAA consumed 882 MWh and 1,129 MWh of purchased renewable energy, respectively.

   In addition, the Department purchased 100,000 MWh of renewable energy certificates to ensure the Department met the energy reduction and renewable energy purchasing goals for FY 2006.

C. **Petroleum.** In FY 2003, consumption of petroleum-based fuels in Goal Subject Buildings was 121.7 billion Btus. In FY 2006, consumption was reduced to 41.9 billion Btus, a 65.6 percent reduction from the FY 2003 baseline.

Although the Department has been very successful in reducing the use of petroleum-based fuels, most Department facilities only use petroleum-based fuels, such as diesel, for their emergency generators and some facilities use oil as a back-up fuel for their natural gas fired boilers. While we cannot control the use of oil in central plants, we can continue to reduce consumption in other applications. NOAA's National Weather Service (NWS) has begun installing fuel cells instead of diesel generators at some of its sites and plans to continue using state-of-the-art technologies wherever feasible.

D. **Water Conservation.** FY 2006 consumption is estimated to be 339.0 million gallons, at a cost of $1.7 million.

To date, the Department has completed three Water Management Plans (WMPs.) These plans have been developed with the assistance of the Department of Energy's National Renewable Energy Laboratory. The Department has four additional facilities that require WMPs, three of which are currently under development.

In addition, operating units are incorporating and implementing FEMP Best Management Practices (BMPs) for efficient use of water. These practices include raising water conservation awareness, installing low-flow devices and sensors, planting indigenous plants, and recycling water. As an example, during 2007 NIST will install low-flow aerators on all sinks and showers at the at its Boulder, Colorado facility. To date they have completely implemented three BMPs; with this additional BMP completed, they will have met the Federal requirements for successful water management program at the facility.

Improving the accuracy of water consumption data will continue to be an obstacle for NOAA. A methodology for reporting on the wide variety of small facilities and water suppliers will be developed as part of NOAA's remaining WMP.

III. Implementation Strategies.

A. **Life-Cycle Cost Analysis.** Operating units employ life-cycle cost analysis as part of making investment decisions for acquiring and operating buildings and equipment.

B. **Financing Mechanisms.** In FY 2006, operating units invested $4.96 million of appropriated funds for their energy projects.

NOAA has been investigating various alternative financing options such as Energy Savings Performance Contracts, including grouping small facilities by region, and Utility Energy Savings Contracts (UESCs), where available.

OSEC completed a UESC lighting project for the Hoover Building, which DOC operates and maintains for General Services Administration (GSA).

C. **ENERGY STAR® and Other Energy-Efficient Products.** The Department supports the use of ENERGY STAR® and other energy-efficient products. Information on the availability and benefits of purchasing ENERGY STAR® products has been distributed to the appropriate functional managers and their contracting officers.

The Department's Office of Acquisition Management and Financial Assistance is working with other Federal agencies through the Federal Acquisition Regulation (FAR) Council to implement the new EPACT 2005 procurement requirements for energy-efficient products.

D. **Sustainable Building Design.** The Department supports sustainable building design. Most new buildings and major renovations are designed to target a "silver" rating in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program.

NOAA has adopted sustainable building design principles developed under the LEED certification program, and is incorporating them into the siting, design, and construction of new facilities. Two NOAA facilities have already received LEED certification:

- West Coast Alaska Tsunami Warning Center, Palmer, Alaska; and
- Weather Forecasting Office, Caribou, Maine.

Both projects were the first LEED certified buildings in those states, demonstrating NOAA's leadership in sustainable building.

NOAA is currently pursuing LEED certification for the following completed construction projects:

- Weather Forecasting Office, Key West, Florida;
- David Skaggs Research Center, Boulder, Colorado;
- Great Lakes Maritime Heritage Center - Thunder Bay National Marine Sanctuary, Alpena, Michigan; and
- Dr. Nancy Foster Florida Keys Environmental Complex, Key West, Florida.

Eleven additional facilities are being designed, or have been designed, to meet LEED certification requirements. In addition, the Department will work with GSA to

achieve a LEED rating for the renovation of the Hoover Building in Washington, D.C.

E. **Energy Efficiency in Lease Provisions.** Generally, GSA leasing guidance is followed for buildings leased by and for the Department. Energy and water efficiency are considered along with other factors when entering into new leases.

F. **Distributed Generation**. The NWS reduced monthly emergency generator testing at 122 Weather Forecast Offices from one hour per month to one-half hour per month. This change resulted in a decrease in consumption of approximately 20,000 gallons of diesel fuel per year. NWS also installed fuel cell systems for emergency power (rather than the typical diesel generator) at their Milton, Massachusetts, and Greensboro, North Carolina, sites.

G. **Electrical Load Reduction Measures**. In FY 2006, major lighting retrofit projects were completed at the Hoover Building and at the NOAA Marine Operations Center - Atlantic (NOAA MOC-A.) The Hoover Building project had not been considered cost-effective in the past due to a planned major renovation of the building. Due to the rising cost of electricity and renovation project delays, it became cost-effective to upgrade the lighting in portions of the building that had been previously excluded from a previous lighting project. The lighting project at the NOAA MOC-A in Norfolk, Virginia, includes a variety of lighting initiatives including the use of Light Emitting Diode exit signs, high pressure sodium lighting in warehouse areas, compact fluorescent lamps and T-8 lighting systems. NOAA estimated that this project reduced the facility's energy consumption by 22 percent.

IV. **Data Tables and Inventories.** The items listed below are provided as attachments.

A. **Assessment of FY 2003 Energy Data for EPACT '05 Baseline Foundation.** See Attachment 1.

B. **FY 2006 Annual Energy Management Data Report.** See Attachment 2.

C. **Energy Scorecard for FY 2006.** See Attachment 3.

D. **Excluded Facilities Inventory**. See Attachment 4.

V. **Energy Management Implementation Plan for FY 2007.** See Attachment 5.

ATTACHMENT 1

Assessment of FY 2003 Energy Data and EPACT '05 Baseline Foundation

Department of Commerce Facilities

FY 2003 ENERGY DATA BASELINE WORKSHEET

Agency: DOC | Prepared by: Regina Larrabee

Date: 12/15/2006 | Phone: 202-482-2345

EXECUTIVE ORDER 13123 REPORTING CATEGORIES

1-1. Standard Buildings/Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	104,655.1	$7,257.3	357.1
Fuel Oil	Thou. Gal.	152.3	$136.5	21.1
Natural Gas	Thou. Cubic Ft.	78,007.7	$520.7	80.4
LPG/Propane	Thou. Gal.	0.0	$0.0	0.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	61.3	$1,247.7	61.3
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$9,162.2	519.9
Standard Buildings/Facilities (Thou. Gross Square Feet)		5,658.3	Btu/GSF:	91,890

1-2. Industrial, Laboratory, Research, and Other Energy-Intensive Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	193,925.2	$10,787.5	661.7
Fuel Oil	Thou. Gal.	725.4	$792.3	100.6
Natural Gas	Thou. Cubic Ft.	664,694.7	$4,374.9	685.3
LPG/Propane	Thou. Gal.	10.0	$11.0	1.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	0.0	$0.0	0.0
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$15,965.7	1,448.5
(Thou. Gross Square Feet)		4,386.7	Btu/GSF:	330,213

1-3. Exempt Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	3,386.8	$345.1	11.6
Natural Gas	Thou. Cubic Ft.	4,944.8	$45.0	5.1
LPG/Propane	Thou. Gal.	0.0	$0.0	0.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	0.0	$0.0	0.0
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$390.1	16.7
(Thou. Gross Square Feet)		26.0	Btu/GSF:	640,538

ENERGY POLICY ACT 2005 REPORTING CATEGORIES

EPACT Goal-Subject Buildings/Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	298,580.3	$18,044.8	1,018.8
Fuel Oil	Thou. Gal.	877.7	$928.7	121.7
Natural Gas	Thou. Cubic Ft.	742,702.4	$4,895.6	765.7
LPG/Propane	Thou. Gal.	10.0	$11.0	1.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	61.3	$1,247.7	61.3
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$25,127.9	1,968.5
EPACT Goal Buildings/Facilities (Thou. Gross Square Feet)		10,045.0	Btu/GSF:	195,967

EPACT Excluded Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	3,386.8	$345.1	11.6
Fuel Oil	Thou. Gal.	0.0	$0.0	0.0
Natural Gas	Thou. Cubic Ft.	4,944.8	$45.0	5.1
LPG/Propane	Thou. Gal.	0.0	$0.0	0.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	0.0	$0.0	0.0
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$390.1	16.7
EPACT Excluded Facilities (Thou. Gross Square Feet)		26.0	Btu/GSF:	640,538

ALL FACILITIES COMBINED

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Site-Delivered Btu (Billion)
Electricity	MWH	301,967.0	$18,390.0	1,030.3
Fuel Oil	Thou. Gal.	877.7	$928.7	121.7
Natural Gas	Thou. Cubic Ft.	747,647.2	$4,940.6	770.8
LPG/Propane	Thou. Gal.	10.0	$11.0	1.0
Coal	S. Ton	0.0	$0.0	0.0
Purch. Steam	BBtu	61.3	$1,247.7	61.3
Other	BBtu	0.0	$0.0	0.0
		Total Costs:	$25,518.0	1,985.1
All Facilities (Thou. Gross Square Feet)		10,071.0	Btu/GSF:	197,114

ATTACHMENT 2

FY 2006 Energy Management Data Report and Accompanying Instructions

Department of Commerce Facilities

FY 2006 ENERGY MANAGEMENT DATA REPORT

Agency: Department of Commerce
Prepared by: Regina M Larrabee
Date: 12/12/2006
Phone: 202-482-2345

PART 1: ENERGY CONSUMPTION AND COST DATA

1-1. EPACT Goal Subject Buildings

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Unit Cost ($)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)
Electricity	MWH	308,942.5	$32,244.6	$0.10 /kWh	1,054.1	3,661.0	52,748
Fuel Oil	Thou. Gal.	302.4	$612.2	$2.02 /gallon	41.9	41.9	837
Natural Gas	Thou. Cubic Ft.	797,027.5	$12,640.6	$15.86 /Thou Cu Ft	821.7	821.7	11,891
LPG/Propane	Thou. Gal.	7.1	$30.0	$4.20 /gallon	0.7	0.7	12
Coal	S. Ton	0.0	$0.0	#DIV/0! /S. Ton	0.0	0.0	0
Purch. Steam	BBtu	55.6	$1,869.8	$33.61 /MMBtu	55.6	77.3	1,991
Other	BBtu	0.0	$0.0	#DIV/0! /MMBtu	0.0	0.0	
		Total Costs:	$47,397.2	Total:	1,974.1	4,602.7	67,477
Goal Subject Buildings (Thou. Gross Square Feet)		10,536.2		Btu/GSF:	187,364	436,842	
				Btu/GSF w/ RE Purchase Credit:	154,329	322,111	
				Btu/GSF w/ RE & Sec. 502(e) Credit:	154,329	322,111	

1-2. EPACT Goal Excluded Facilities

Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Unit Cost ($)	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)	Est. Carbon Emissions (Metric Tons)
Electricity	MWH	3,285.3	$436.2	$0.13 /kWh	11.2	38.9	561
Fuel Oil	Thou. Gal.	0.0	$0.0	#DIV/0! /gallon	0.0	0.0	0
Natural Gas	Thou. Cubic Ft.	8,987.7	$142.3	$15.84 /Thou Cu Ft	9.3	9.3	134
LPG/Propane	Thou. Gal.	0.0	$0.0	#DIV/0! /gallon	0.0	0.0	0
Coal	S. Ton	0.0	$0.0	#DIV/0! /S. Ton	0.0	0.0	0
Purch. Steam	BBtu	0.0	$0.0	#DIV/0! /MMBtu	0.0	0.0	0
Other	BBtu	0.0	$0.0	#DIV/0! /MMBtu	0.0	0.0	
		Total Costs:	$578.6	Total:	20.5	48.2	695
Goal Excluded Facilities (Thou. Gross Square Feet)		26.0		Btu/GSF:	789,025	1,857,231	
				Btu/GSF w/ RE Purchase Credit:	789,025	1,857,231	
				Btu/GSF w/ RE & Sec. 502(e) Credit:	789,025	1,857,231	

1-3. Non-Fleet Vehicles and Other Equipment

	Consumption Units	Annual Consumption	Annual Cost (Thou. $)	Unit Cost ($)	Btu (Billion)	Est. Carbon Emissions (Metric Tons)
Auto Gasoline	Thou. Gal.	3.3	$5.4	$1.65 /gallon	0.4	8
Diesel-Distillate	Thou. Gal.	4,540.8	$9,841.8	$2.17 /gallon	629.8	12,565
LPG/Propane	Thou. Gal.	0.0	$0.0	#DIV/0! /gallon	0.0	0
Aviation Gasoline	Thou. Gal.	20.6	$81.1	$3.94 /gallon	2.6	49
Jet Fuel	Thou. Gal.	703.6	$2,057.0	$2.92 /gallon	91.5	1,768
Navy Special	Thou. Gal.	0.0	$0.0	#DIV/0! /gallon	0.0	0
Other	BBtu	0.0	$0.0	#DIV/0! /MMBtu	0.0	
		Total Costs	$11,985.4		724.3	14,389

1-4. WATER CONSUMPTION, COST AND EFFICIENCY MEASURES

	Consumption Units	Annual Consumption	Annual Cost (Thou. $)
Water	Million Gal.	339.0	$1,732.9
Best Management Practice Implementation Tracking Data			
Number of facilities* in agency inventory			7.0
Number of facilities with completed water management plans			3.0
Number of facilities with at least four (4) BMPs fully implemented			1.0
*number in the agency inventory, can be buildings, bases, or campuses			

1-5. RENEWABLE ENERGY/RENEWABLE ENERGY CERTIFICATE PURCHASES IN FY 2006

(Only include renewable energy purchases from resources developed after 1990)

Description of *Each* Renewable Energy Purchase (examples below, insert additional rows as necessary for each separate purchase)	Amount Purchased (MWH)	or	Amount Purchased (Million Btu)	State or Region of Generation or Source	End Use Category (Goal or Excluded)
Electricity from Renewable Source	2,011.2		0.0		Goal
Renewable Energy Certificates	100,000.0		0.0		Goal
Natural Gas from Landfill/Biomass	0.0		0.0		
Renewable Thermal Energy	0.0		0.0		
Other Renewable Energy (describe)	0.0		0.0		
Total All Purchases	102,011.2		0.0		
Total Purchases for Goal Buildings	102,011.2		0.0		
Total Purchases for Excluded Facilities	0.0		0.0		

1-6. SELF-GENERATED RENEWABLE ENERGY INSTALLED AFTER 1990

	Consumption Units	Total Annual Energy	Energy Used by Agency*
Electricity from Renewables	MWH	57.0	57.0
Natural Gas from Landfill/Biomass	MMBtu	0.0	0.0
Renewable Thermal Energy**	MMBtu	0.0	0.0
Other Renewable Energy_____***	MMBtu	0.0	0.0

*Energy used by agency equals total annual generation unless a project sells a portion of the energy it produces to another agency or the private sector. It can equal zero in the case of non-Federal energy projects developed on Federal land.

**Examples are geothermal, solar thermal, and geothermal heat pumps, and the thermal portion of combined heat and power projects. Energy savings from geothermal heat pumps should be based on energy savings compared to conventional alternatives like air-to-air heat pumps. If only electricity savings are known, multiply kWh savings by 3,412 to estimate renewable energy BTUs.

***For other renewable energy that does not fit any category, fill in the type, units used, annual consumption and cost, and include any additional information in your narrative submission. For example, tidal, wave, current and thermal ocean energy, incremental hydropower, or energy displaced by daylighting technology or passive solar design.

1-7. TOTAL RENEWABLE ENERGY USE AS A PERCENTAGE OF FACILITY ELECTRICITY USE

Renewable Energy Use (BBtu)	Facility Electricity Use (BBtu)	RE as a Percentage of Electricity Use
348.3	1,065.3	32.7%

PART 2: ENERGY EFFICIENCY IMPROVEMENTS

2-1. DIRECT AGENCY OBLIGATIONS

(Agencies may attach their final OMB Circular A-11 Energy and Transportation Efficiency Management Exhibit in lieu of completing Table 2-1.)

	FY 2006		Projected FY 2007	
	(MMBTU)	(Thou. $)	(MMBTU)	(Thou. $)
Direct obligations for facility energy efficiency improvements, including facility surveys/audits				
Estimated annual savings anticipated from obligations				

See attached A-11 Energy and Transportation Efficiency Management submittal

2-2. ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPC)

	Annual savings (MMBTU)	(number/Thou. $)
Number of ESPC Task/Delivery Orders awarded in fiscal year & annual energy (MMBTU) savings.	0.0	$0.0
Investment value of ESPC Task/Delivery Orders awarded in fiscal year.		$0.0
Amount privately financed under ESPC Task/Delivery Orders awarded in fiscal year.		$0.0
Cumulative guaranteed cost savings of ESPCs awarded in fiscal year relative to the baseline spending.		$0.0
Total contract award value of ESPCs awarded in fiscal year (sum of contractor payments for debt repayment, M&V, and other negotiated performance period services).		$0.0
Total payments made to all ESP contractors in fiscal year.		$863.6

2-3. UTILITY ENERGY SERVICES CONTRACTS (UESC)

	Annual savings (MMBTU)	(number/Thou. $)
Number of UESC Task/Delivery Orders awarded in fiscal year & annual energy (MMBTU) savings.	16.8	$2.0
Investment value of UESC Task/Delivery Orders awarded in fiscal year.		$733.9
Amount privately financed under UESC Task/Delivery Orders awarded in fiscal year.		$733.9
Cumulative cost savings of UESCs awarded in fiscal year relative to the baseline spending.		$308.7
Total contract award value of UESCs awarded in fiscal year (sum of payments for debt repayment and other negotiated performance period services).		$139.1
Total payments made to all UESC contractors in fiscal year.		$691.6

2-4. UTILITY INCENTIVES (REBATES)

	Annual savings (MMBTU)	(Thou. $)
Incentives received and estimated energy savings	0.0	$28.0
Funds spent in order to receive incentives		$10.7

	(number)	(Thou. $)
Number of personnel trained/Expenditure	25.0	$32.0

FY 2008 FUNDING REQUEST FOR ENERGY AND TRANSPORTATION EFFICIENCY MANAGEMENT

Agency: Department of Commerce
Date: December 19, 2006
Prepared by: Regina Larrabee (1.1)/Jeri Coleman (1.2)
Phone: 202-482-2345 / 202-482-3796

1.1 IDENTIFICATION OF FUNDS FOR ENERGY EFFICIENCY MANAGEMENT AS REQUIRED BY E.O. 13123

	2006		2007		2008		
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
ESPC and/or UESC negotiation/administration	10		40		40		
Direct spending on energy efficiency	4,701		4,597		4,641		
Direct spending on training	33		31		31		
Energy Star ® building design/ construction incremental costs					80		
"Green Power" purchases	81		81		81		
On-site generation and renewable power generation	4		5		105		
Other (please specify): Energy data management	18		60		40		
Other (please specify): Contract support	113		90		90		
Total	**4,960**		**4,904**		**5,108**		

1.2 IDENTIFICATION OF FUNDS FOR TRANSPORTATION EFFICIENCY MANAGEMENT AS REQUIRED BY E.O. 13149

	2006		2007		2008		
	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Amount (thou. $)	Account(s)	Page(s) in Budget Submission to OMB
Acquisition of alternative fuel vehicles	255		290		310		
Infrastructure development and use of alternative fuels	2		3		3		
Implementation of compliance strategy, including any modifications							
Direct spending on training	9		13		15		
Procurement of environmentally preferable motor vehicle products	1		1		1		
Other (please specify) _____							
Total	**267**		**307**		**329**		

ATTACHMENT 3

Agency Energy Scorecard for FY 2006

Department of Commerce Facilities

FY 2006 Federal Agency Energy Scorecard

Department/Agency Name	Contact Name and Phone
U.S. Department of Commerce	Regina Larrabee/202-482-2345
Name of Senior Energy Official	**Signature of Senior Energy Official**
Otto J. Wolff	

Did your agency . . .	Yes	No	Anticipated Submittal Date
1. Submit its FY 2006 energy report to OMB and DOE by January 1, 2007 (Sec. 303)?	X		December 29, 2006
2. Submit a FY 2007 Implementation Plan by January 1, 2007 (Sec. 302)?	X		December 29, 2006
Did your agency . . .	**Yes**	**No**	**Comments**
3. Implement or continue to use renewable energy projects at Federal installations or facilitate the siting of renewable generation on Federal land in FY 2006 (Sec. 204)? (Report all self-generated renewable energy from projects installed after 1990; refer to Table 1-7 on the Energy Management Data Report)	X		If yes, how many projects and how much energy generated? (Specify unit: MWH or MMBtu) # Projects / Energy / Unit Solar 4 / 57 / MWh Wind ___ / ___ / ___ Thermal[1] ___ / ___ / ___ Biomass ___ / ___ / ___ Other RE ___ / ___ / ___
4. Purchase energy generated from new renewable energy sources in FY 2006 (Sec. 204)?[2] (Refer to Table 1-6 on the Energy Management Data Report)	X		If yes, how much: 102,011.2 MWH or ___ MMBtu
5. Invest direct FY 2006 appropriations in projects contributing to the goals of the Order (Sec. 301)?	X		If yes, how much: $ 4171
6. Specifically request funding necessary to achieve the goals of the Order in its FY 2008 budget request to OMB (Sec. 301)? (Refer to OMB Circular A-11, Section 25.5, Table 2)	X		If yes, how much: $ 5023
7. Perform energy audits of 10% of its facility space during the fiscal year (Sec. 402)?		X	What percentage of facility space was audited during the FY? 6.0 % How much facility space has been audited since 1992?[3] 80.7 %
8. Issue to private-sector energy service companies (ESCOs) any energy savings performance contract (ESPC) delivery orders (Sec. 403(a))? (Refer to Table 2-2 on the Energy Management Data Report)		X	How many? 0 Annual savings (MMBtu): ___ Total investment value[4]: $ ___ Cumulative guaranteed cost savings: $ ___ Award value: $ ___

1 Examples are geothermal, solar thermal, and geothermal heat pumps. Thermal energy from geothermal heat pumps should be determined as follows: Thermal energy = Total geothermal heat transferred – electrical energy used.

2 "New" renewable energy means sources developed after 1990.

3 Should be greater than 100% if all facility space has been audited at least once since 1992.

4 Investment value includes design, materials, labor, overhead, and profit but excludes contractor's financing costs and government's administration costs. Using investment value allows comparison with other traditional execution methods such as appropriated and working capital funded projects.

Did your agency . . .	Yes	No	Comments
9. Issue any utility energy services contract (UESC) delivery orders (Sec. 403(a))? (Refer to Table 2-3 on the Energy Management Data Report)	X		How many? 1 Annual savings (MMBtu): 16.8 Total investment value[4]: $ 733.9 Cumulative cost savings: $ 308.7 Award value: $ 139.1
10. Incorporate energy efficiency requirements into relevant acquisitions (Sec. 403(b)(3))?	X		
11. Adopt and apply the sustainable design principles (e.g., Whole Building Design Guide, Leadership in Energy and Environmental Design (LEED)) to the siting, design, and construction of new facilities or major (budget line item) renovations begun in FY 2005 (Sec. 403(d))?	X		Number of new building (or major renovation) design/construction projects in FY 2006[5]: 1 Number of these projects that can or will be certified under LEED[5]: 1
12. Provide training to appropriate personnel[6] on energy management (Sec. 406(d))?	X		Number of appropriate personnel trained: 25 Total number of appropriate personnel: 201
13. Implement any additional management tools (Sec. 406)?	X		Check all that apply: Awards: X Performance Evaluations: X Showcase Facilities: X Number of Showcase Facilities designated in fiscal year: 0
14. Establish Water Management Plans (WMPs) and implement at least 4 Best Management Practices (BMPs) in at least 30% of agency facilities (Sec. 207, 503(f))?		X	Number of facilities with WMPs and 4 BMPs: 1 Number of facilities in agency inventory: 7

NOTE: Provide additional information below if a "No" reply is used for any of the questions above.

7. Previous audit recommendations remain unfunded.

8. Use of ESPC is being explored for some sites, but most sites are too small to be of interest to ESCOs.

14. Water management Plans have been established for 43% of our facilities. However, only 1 facility has implemented the required 4 BMPs.

5 Count projects only once, regardless of phase. For example, if in FY 2006, your agency had 10 new building or major renovation projects, of which 2 can be LEED certified, then report 10 and 2, respectively, in the spaces provided. If the project was designed and reported on in response to this question in a previous year, do not report it as a new project in FY 2006, even if construction commenced or continued in FY 2006.

6 Appropriate personnel include the agency energy management team as well as Federal employees and on-site contractors who are energy or facility managers, operations and maintenance workers, design personnel, procurement and budget staff, and legal counsel.

Please enter data from annual energy report pertinent to performance toward the goals of Executive Order 13123/EPACT 2005	Base Year (2003)	Previous Year (2005)	Current Year (2006)	% Change (Current vs. Base)
15. Site Energy Efficiency Improvement Goals (EPACT).	195,967 Btu/Ft^2	N/A Btu/Ft^2	154,329 Btu/Ft^2	21.2 %
16. Sec. 205. Petroleum-Based Fuel Use in Facilities (E.O. Sec. 205).	121.7 BBtu	N/A BBtu	41.9 BBtu	65.6 %
17. Source Energy Use (E.O. Sec. 206).	N/A BBtu	N/A BBtu	4,602.7 BBtu	%
18. Water Consumption (E.O. Sec. 207).	343.1 MGal	351.2 MGal	339.0 MGal	1.2 %
19. Renewable Energy from self-generation and RE purchases (E.O. Sec. 204)	0.2 BBtu	299.6 BBtu	348.3 BBtu	174,150 %

Abbreviation Key: Btu/Ft^2 = British thermal units per gross square foot
MGal = Million gallons
MMBtu = Million British Thermal Units
BBtu = Billion British Thermal Units
RE = Renewable energy
N/A = Not applicable

ATTACHMENT 4

Excluded Facilities Inventory

Department of Commerce Facilities

Department of Commerce Excluded Facilities Inventory

The following facilities were excluded in the base year only:

Excluded Facility	Location	Reason for Exclusion
Advanced Measurement Laboratory	NIST Campus, Gaithersburg, MD	Facility under construction; not yet occupied

The following facilities were excluded in both the base year and the current year:

Excluded Facility	Location	Reason for Exclusion
NIST WWV/WWVB Radio Station	Ft. Collins, CO	Radio transmitter for time of day
NIST WWVH Facility	Barking Sands, Kauai, HI	Radio transmitter for time of day
NIST Laboratory Test Equipment	NIST Campus, Gaithersburg, MD	Natural gas for burn chamber and other laboratory uses
National Weather Service Radar Sites	Various locations across US	Weather radar sites
NOAA Weather Radio Transmitter Sites	Various locations across US	Radio Transmitter sites for weather alerts
National Weather Service Data Acquisition Sites	Various locations across US	Weather data acquisition sites

ATTACHMENT 5

Energy Management Implementation Plan for FY 2007

Energy Management Implementation Plan for Fiscal Year 2007

U.S. Department of Commerce

I. **Management and Administration.** DOC outlines its energy program in Department Administrative Order #217-16, *Federal Energy Management*, which prescribes policies, assigns responsibility, and provides program guidelines for energy and water management.

In addition, the Department has a strategic implementation plan (SIP) for energy management that is guides the Department in the implementation of the DAO. During fiscal year (FY) 2006, the Department updated the SIP to reflect the new requirements brought about by the *Energy Policy Act of 2005* (EPACT 2005). This update is under final review and will be issued soon.

Operating units with responsibility for energy and water management in DOC facilities include the following:

- Office of the Secretary (OSEC),
- National Oceanic and Atmospheric Administration (NOAA),
- National Institute of Standards and Technology (NIST),
- National Technical Information Service (NTIS), and
- Bureau of the Census (Census).

A. **Energy Management Infrastructure** Executive Order (E.O.) 13123, *Greening the Federal Government through Efficient Energy Management* requires that each agency designate a senior official, at the Assistant Secretary level or above, to be responsible for meeting the goals and requirements of E.O. 13123, and that each agency shall form a technical support team consisting of appropriate procurement, legal, budget, management, and technical representatives. The energy management organizational infrastructure supporting DOC's energy management implementation plan is as follows:

1. **Senior Energy Official**. The Department's Senior Energy Official is Mr. Otto J. Wolff, Chief Financial Officer and Assistant Secretary for Administration. The Senior Energy Official, or his designated representative, participates at the Interagency Energy Policy Committee meetings and ensures actions under the *Department of Commerce Strategic Implementation Plan for Energy Management* are accomplished to meet Federal goals.

2. **Agency Energy Team**. The Agency Energy Team continually monitors the progress of the agency in implementing specific actions of the plan, and advises DOC Energy Program Manager and Senior Agency Official of any action that should be taken to provide DOC personnel with the training and resources necessary to ensure successful implementation. The DOC Agency Energy Team members are:

   - Francesca Ryan, Acting Director, Office of Real Estate, DOC;

- Regina Larrabee, Energy Program Manager, Office of Real Estate, DOC;
- Nancy Barrere, Office of Acquisition Management and Financial Assistance, DOC;
- Malcolm Orr, Attorney, General Law Division, DOC;
- Butch Harned, Census;
- Jim Boyd, Engineering, Maintenance, Safety and Support Division , NIST;
- Daniel Gilmore, Chief, Facilities Engineering & Construction Group, NIST;
- Jatin R. Patel, Mechanical Engineer, Facilities Engineering, NIST;
- Byron Crenshaw, Energy Program Manager, NOAA/NWS;
- Will Freeman, Environmental Compliance Division, NOAA.

The Agency Energy Team will continue to conduct quarterly web-meetings, which are open to all interested parties in the Department to participate.

B. Management Tools

1. **Awards (Employee Incentive Programs).** DOC will continue to participate in the Federal Energy Management Program (FEMP) *You Have the Power* and *Federal Energy and Water Management Awards* programs.

2. **Performance Evaluations.** Key personnel have references to the Department's energy program in their performance standards.

3. **Training and Education.** The Agency Energy Team promotes energy-related training opportunities for facility energy management personnel. Annually, employees attend the Federal government-sponsored energy training workshop.

   Operating units make energy awareness a key part of their energy programs, using materials provided through the FEMP *You Have the Power* program as well as with supplemental materials. Annually, the Department implements energy conservation awareness campaigns in conjunction with Energy Awareness Month and Earth Day. The campaigns included displays, informational materials and posters in the Herbert C. Hoover Building (Hoover Building). Other DOC sites around the country conduct similar campaigns.

4. **Showcase Facilities.** The Department participates in the Federal Energy Saver Showcase program, and will nominate deserving facilities to be a Showcase project as an opportunity to recognize their accomplishments. To date, the Department has six showcase facilities.

II. Implementation Strategies. Each operating unit will develop an action plan addressing how they plan to meet the requirements of EPACT 2005 and E.O. 13123. In addition, the operating units will continue using the following strategies to reduce energy consumption and improve energy efficiency:

A. **Facility Energy Audits.** Audits will be performed in conjunction with Utility Energy Savings Contracts (UESCs) and Energy Savings Performance Contracts (ESPCs.).

B. **Financing Mechanisms.** NIST and Census will continue to use appropriated funds to accomplish their energy reduction goals. NOAA will continue to explore the use of ESPCs and UESCs at its facilities.

C. **ENERGY STAR® and Other Energy-Efficient Products**. The Federal Acquisition Regulation (FAR) Council is working to revise the FAR to incorporate the requirements of EPACT 2005. DOC's Office of Acquisition Management and Financial Assistance will distribute the new FAR requirements to DOC's acquisition community once they are issued.

D. **Sustainable Building Design**. DOC has embraced sustainable building concepts, and plans to incorporate sustainable design practices into guidance for major real estate projects. NOAA has been, and will continue to be, a leader in this area. The Department has eleven additional facilities that are being designed, or have been designed, to meet LEED certification requirements. In addition, the Department will work with GSA to achieve a LEED rating for the renovation of the Hoover Building in Washington, D.C.

E. **Highly Efficient Systems.** As appropriate, new facilities will be designed to meet the revised design targets established by EPACT 2005. We will use all available design strategies to meet this requirement. An example of this is the use of sustainable design principles, such as the use of energy- and water-efficient technologies and the use of recycled content materials, which are being incorporated into the design of new buildings where it is life-cycle cost-effective.

F. **Distributed Generation.** We will continue to investigate and install various forms of distributed generation systems in those facilities that would most benefit from such systems due to their mission critical operations. Systems that have proven to be cost-effective in the past include photovoltaic systems, fuel cells and wind turbines.

G. **Metering and Electric Load Reductions.** In FY 2006, the Department issued its metering plan per EPACT 2005. In FY 2007, the Department will continue to identify facilities that require metering, and begin to prioritize projects to enhance data collection. In order to reduce electrical loads, the data from this metering effort will be used to develop reduction strategies.

For additional information about this program, or to submit questions or suggestions, you may contact Ms. Regina Larrabee, Energy Manager, at 202-482-2345.